

Appl. No. 10/779,835
Amdt. dated June 6, 2006
Reply to Office Action of March 6, 2006

IN THE CLAIMS:

What is claimed is:

1. (Currently Amended) A multiple blade razor cartridge comprising:

a plurality of razor blades;

a plurality of support members, each of said support members having a plurality of blade seats spaced apart from one another and disposed along a length of said support member;

wherein each of said blade seats of each of said support members is separated from [[the]]a next successive blade seat of said support member by a flexible hinge;

at least one a plurality of retaining members connecting said support members such that said support members are spaced apart from each other and arranged approximately parallel to each other so that each of said blade seats is approximately aligned with a corresponding blade seat defined by [[the]]a next successive support member thereby forming a plurality of rows of approximately aligned blade seats;

[[a-]]each of said plurality of razor blades being each-fixed to one of said rows of blade seats; and wherein

said flexible hinges and thereby said support members are deformable in response to an externally applied force such that a relative angle between successive razor blades is variable.

2. (Original) A multiple blade razor cartridge as defined in claim 1 further comprising a pair of end guards, each of said pair coupled to said support members adjacent to an opposing lateral end of said razor blades.

3. (Original) A multiple blade razor cartridge as defined in claim 1 wherein said plurality of support members further comprise a pair of end support members each of said pair connected to an opposing lateral end of said at least one retaining member such that said rows of blade seats and said razor blades fixed to said blade seats terminate at said end support members.

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4. (Original) A multiple blade razor cartridge as defined in claim 3 wherein each of said pair of end support members further comprise an end guard positioned at a lateral end of said plurality of razor blades.

5. (Original) A multiple blade razor cartridge as defined in claim 1 wherein said at least one retaining member comprises a row of retaining members each of said row corresponding to one of said rows of blade seats, wherein each of said retaining members is connected to said support members on a side of said support members opposite said blade seats such that each said retaining member is approximately aligned with said corresponding row of blade seats.

6. (Original) A multiple blade razor cartridge as defined in claim 1 further comprising coupling means for attaching said cartridge to a handle.

7. (Original) A multiple blade razor cartridge as defined in claim 6 wherein said coupling means is releasable.

8. (Original) A multiple blade razor cartridge as defined in claim 1 further comprising: at least one pivot member attached to one of said support members forward of said razor blades; at least one pivot member attached to one of said support members aft of said razor blades; and wherein said pivot members for coupling said razor cartridge to a handle.

9. (Original) A multiple blade razor cartridge as defined in claim 8 wherein at least one of said pivot members is male.

10. (Original) A multiple blade razor cartridge as defined in claim 8 wherein at least one of said pivot members is female.

11. (Original) A multiple blade razor cartridge as defined in claim 8 wherein at least one of said pivot members is a pivot head.

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12. (Original) A multiple blade razor cartridge as defined in claim 1 wherein said rows of blade seats are separated by said flexible hinges of non-uniform flexibility.

13. (Currently Amended) A razor assembly comprising:

a handle;

a razor cartridge having a plurality of razor blades;

said razor cartridge having a plurality of support members, each of said support members having a plurality of blade seats spaced apart from one another and disposed along a length of said support member;

wherein each of said blade seats of each of said support members is separated from [[the]] a next successive blade seat of said support member by a flexible hinge;

at least one a plurality of retaining members connecting said support members such that said support members are spaced apart from each other and arranged approximately parallel to each other so that each of said blade seats is approximately aligned with a corresponding blade seat defined by [[the]] a next successive support member thereby forming a plurality of rows of approximately aligned blade seats;

[[a]] each of said plurality of razor blades being each fixed to one of said rows of blade seats;

wherein said hinges and thereby said support members are deformable in response to an externally applied force such that a relative angle between successive razor blades is variable; and

coupling means for attaching said razor cartridge to said handle.

14. (Original) A razor assembly according to claim 13 wherein said razor cartridge provides a cutting surface that is variable during a shaving process throughout a range of shapes from an outwardly facing convex shape to an outwardly facing concave shape.

15. (Original) A razor assembly according to claim 13 wherein the relative angles between said successive razor blades is variable during a shaving process.

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16. (Currently Amended) A razor assembly comprising:

a handle;

a razor cartridge having a plurality of razor blades;

said razor cartridge having a plurality of support members, each of said support members having a plurality of blade seats spaced apart from one another and disposed along a length of said support member;

wherein each of said blade seats of each of said support members is separated from [[the]] a next successive blade seat of said support member by a flexible hinge;

at least one a plurality of retaining members connecting said support members such that said support members are spaced apart from each other and arranged approximately parallel to each other so that each of said blade seats is approximately aligned with a corresponding blade seat defined by [[the]] a next successive support member thereby forming a plurality of rows of approximately aligned blade seats;

[[a-]] each of said plurality of razor blades being each fixed to one of said rows of blade seats; and

wherein said hinges and thereby said support members are deformable in response to an externally applied force such that a relative angle between successive razor blades is variable;

at least two arm members each having a first end pivotally coupled to said handle and a second end pivotally coupled to said razor cartridge;

said second ends of said arm members coupled to said razor cartridge such that at least one arm member is coupled to said razor cartridge forward of said razor blades and at least one of said arm members is coupled to said cartridge aft of said razor blades; and

wherein said razor cartridge being retained between said second ends of said at least two arm members.

17. (Original) A razor assembly as defined in claim 16 wherein said first ends of said at least two arm members are pivotally coupled to said handle about a common axis.

18. (Original) A razor assembly as defined in claim 16 further comprising a spring coupled to said at least two arm members such that said second ends of said arm members are biased toward one another applying a compressive force to said razor cartridge retained therebetween.

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19. (Original) A razor assembly as defined in claim 18 wherein said spring deforms said hinges and thereby said support members increasing the relative angle between successive razor blades such that said plurality of razor blades provides an outwardly facing convex shaped cutting surface.

20. (Original) A razor assembly as defined in claim 19 wherein said outwardly facing convex shaped cutting surface is further deformable upon engagement with a surface being shaved during a shaving process.

21. (Original) A razor assembly as defined in claim 18 wherein said spring deforms said hinges and thereby said support members varying the relative angle between successive razor blades such that said plurality of razor blades provides an outwardly facing concave shaped cutting surface.

22. (Original) A razor assembly as defined in claim 21 wherein said outwardly facing concave shaped cutting surface is further deformable upon engagement with a surface being shaved during a shaving process.

23. (Original) A razor assembly as defined in claim 16 further comprising a spring coupled to said at least two arm members such that said second ends of said arm members are biased away from one another such that said plurality of razor blades provides a normally planar cutting surface and the relative angle between successive razor blades is uniform.

24. (Original) A razor assembly as defined in claim 23 wherein said normally planar cutting surface is further deformable upon engagement with skin during a shaving process.

25. (Original) A razor assembly as defined in claim 16 wherein said plurality of blade seats and said razor blades are provided such that the relative spacing between a cutting edge of successive razor blades is non-uniform.

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26. (Original) A razor assembly as defined in claim 16 wherein said razor cartridge provides a cutting surface that is variable during a shaving process throughout a range of shapes from an outwardly facing convex shape to an outwardly facing concave shape.

27. (Currently Amended) A razor assembly comprising:

a handle;

a razor cartridge having a plurality of razor blades;

said razor cartridge having a plurality of support members, each of said support members having a plurality of blade seats spaced apart from one another and disposed along a length of said support member;

wherein each of said blade seats of each of said support members is separated from [[the]]a next successive blade seat of said support member by a flexible hinge;

at least one a plurality of retaining members connecting said support members such that said support members are spaced apart from each other and arranged approximately parallel to each other so that each of said blade seats is approximately aligned with a corresponding blade seat defined by [[the]]a next successive support member thereby forming a plurality of rows of approximately aligned blade seats;

[[&]]each of said plurality of razor blades being each-fixed to one of said rows of blade seats; and wherein said hinges and thereby said support members are deformable in response to an externally applied force such that a relative angle between successive razor blades is variable;

at least one first pivot member attached to at least one of said support members forward of said razor blades;

at least one first pivot member attached to at least one of said support members aft of said razor blades; at least two arm members each having a first end coupled to said handle and a second end having a second pivot member coupled to at least one of said first pivot members;

said at least two arm members coupled at the second ends thereof to said support members such that at least one of said arm members is coupled to said support members forward of said razor blades and at least one of said arm members is coupled to said support members aft of said razor blades; and wherein said razor cartridge being pivotally coupled between said second ends of said at least two arm members.

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28. (Original) A razor assembly as defined in claim 27 wherein said first and second pivot members are cooperating male and female pivot heads.

29. (Original) A razor assembly as defined in claim 27 wherein said flexible hinges are non-uniform in flexibility such that the shape of a cutting surface provided by the plurality of blades is non-uniform.

30. (Original) A razor assembly as defined in claim 27 further comprising a spring coupled to said at least two arm members such that said second ends of said arm members are biased toward one another applying a compressive force to said razor cartridge retained therebetween.

31. (Original) A razor assembly as defined in claim 27 wherein said razor cartridge provides a cutting surface that is variable during a shaving process throughout a range of shapes from an outwardly facing convex shape to an outwardly facing concave shape.